

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

TQ DELTA, LLC,)	
)	
Plaintiff,)	C.A. No. 13-cv-1835-RGA
)	
v.)	
)	
2WIRE, INC.,)	
)	
Defendant.)	
)	

**DEFENDANT 2WIRE, INC.'S (1) OPPOSITION TO PLAINTIFF TQ DELTA, LLC'S
MOTION FOR SUMMARY JUDGMENT OF NO INVALIDITY OF FAMILY 2 PATENT
CLAIMS UNDER 35 U.S.C. §§ 101 AND 112 AND (2) CROSS-MOTION FOR
SUMMARY JUDGMENT OF INVALIDITY UNDER 35 U.S.C. § 101**

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I. INTRODUCTION

In its motion, TQ Delta, LLC (“TQ Delta”) moves for summary judgment on two conceptually distinct defenses: invalidity under 35 U.S.C. § 101, and invalidity under 35 U.S.C. § 112. TQ Delta seeks to eliminate these defenses from the case. With respect to Section 101 invalidity, TQ Delta’s motion should be denied, and 2Wire’s cross-motion for summary judgment, *i.e.*, this motion, should be granted. With respect to Section 112 invalidity, genuine disputes of material fact, based on the evidence adduced by 2Wire, require that TQ Delta’s motion be denied.

101 Invalidity. TQ Delta’s motion fails to show that claims 17 and 18 of U.S. Patent No. 7,453,881 (the ’881 patent) are not invalid for failure to recite patentable subject matter. TQ Delta contends that the patent recites an improved way of bonding DSL transceivers that are capable of utilizing transmission parameter values to reduce differential latency. D.I. 740, at 6-10. However, the claims and specification do not describe any improvement to the transceivers, nor does TQ Delta identify what it is. Instead, ’881 patent recites nothing more than a math equation that may be used for reducing the difference in latency between conventional bonded transceivers by configuring conventional transmission parameters for the bonded transceivers. That is an abstract idea under the Supreme Court’s decisions in *Alice* and *Bilski*. Therefore, the Court should rule that claims 17 and 18 of the ’881 patent fail to describe patentable subject matter as a matter of law. TQ Delta’s motion should be denied, and 2Wire’s cross-motion for summary judgment of invalidity based on 35 U.S.C. § 101 should be granted.

112 Invalidity. 2Wire has adduced evidence that the ’881 patent does not describe any ways of reducing a difference in configuration latency without eliminating the difference in latency entirely. With respect to indefiniteness, 2Wire has adduced evidence that the term “utilizing at least one transmission parameter value to reduce a difference in latency” is

indefinite, because a person of ordinary skill in the art (“POSITA”) would not know when a difference in latency has actually been reduced. Similarly, for enablement and written description, 2Wire has shown evidence that the intrinsic record does not enable, or describe, utilizing at least one transmission parameter value to reduce a difference in latency. Therefore, TQ Delta’s motion for no invalidity 35 U.S.C. § 112 should be denied.

II. NATURE AND STAGE OF THE PROCEEDING

TQ Delta filed this patent infringement lawsuit against 2Wire on November 4, 2013, asserting infringement of twenty-four patents. *See* D.I. 1, 6. The Court has split the case into separate trials based on patent families. *See* D.I. 280. Family 2 is currently at issue, and TQ Delta currently asserts only a single patent from Family 2, U.S. Patent No. 7,453,881 (“the ’881 patent”).

Fact and expert discovery is now closed. A pretrial conference for the Family 2 trial against 2Wire is set for April 19, 2019, and trial is set for April 29, 2019. *See* D.I. 513.

III. SUMMARY OF THE ARGUMENT

TQ Delta’s motion for summary judgment should be denied, and 2Wire’s cross-motion for summary judgment of invalidity under 35 U.S.C. § 101 should be granted, for the following reasons:

1. Claims 17 and 18 of the ’881 patent recite nothing more than an abstract idea: a math equation for configuring bonded transceivers connected to lines operating at different data rates. The transceivers themselves are entirely conventional, as are the transmission parameters being configured using the equation provided by the claims of the ’881 patent. Thus, the claims are invalid for reciting unpatentable subject matter.
2. 2Wire has presented evidence that the term “utilizing at least one transmission parameter to reduce a difference in latency” is indefinite under 35 U.S.C. § 112, ¶ 2, because one of ordinary skill in the art would not know when a difference in latency is reduced unless it was eliminated entirely.

3. 2Wire has presented evidence that the full scope of claims 17 and 18, as construed, are not enabled, because to a POSITA the specification describes no way of reducing a difference in configuration latency without eliminating it entirely.
4. 2Wire has presented evidence that a POSITA would not understand the patentee to be in possession of the full scope of the invention, because the specification and claims do not describe any ways of reducing the difference in configuration latency without eliminating it entirely.

IV. FACTUAL BACKGROUND¹

A. The '881 Patent.

The '881 patent concerns systems and methods to “combine multiple DSL PHY’s, i.e., multiple twisted wire pairs, to, for example, generate a high data rate connection” for the transport of what is known as an asynchronous transfer mode (“ATM”) cell stream “between the service provider and, for example, a DSL subscriber.” D.I. 727, Ex. A at 1:60-64.² ATM cells are a kind of communication medium that may be used with DSL technologies. *See id.* 1:14-17; 1:28-32. These cells when transported over different physical links can have different end-to-end delays, or latencies, “based on several parameters.” *Id.* at 6:2-4. The '881 patent describes four sources that can cause such a difference in latency. One of these sources is configuration latency, which “is based on the configuration of the DSL transmission parameters,” including “the data rate, coding parameters, such as coding method, codeword size, interleaving parameters, framing parameters, or the like.” *Id.* at 6:12-16; *see also id.* 6:17-31 (describing other sources of latency).

¹ Except where otherwise noted, all references are to (a) the Declaration of Dr. Martin Walker (D.I. 717); (b) the Declaration of Dr. Krista Jacobsen (D.I. 722); (c) the Omnibus Declaration of Monte M.F. Cooper (D.I. 727); and (d) the Omnibus Declaration of Rachel M. Walsh (D.I. 728), all filed in support of Defendant 2Wire, Inc.’s Motion for Summary Judgment of Non-Infringement of Claims 17-18 of U.S. Patent No. 7,453,881 (D.I. 715 & 716).

² References to the '881 patent are by column(s) x, line(s) yy-zz, in the form of “x:yy-zz.”

The '881 patent describes reducing differential latency by “mandat[ing] that all DSL PHYs are configured with transmission parameters in order to provide the same configuration latency.” *Id.* at 6:56-59. If different twisted pairs support different data rates, the specification describes “us[ing] the appropriate coding or interleaving parameters to have the same latency on all the bonded PHYs.” *Id.* at 6:62-65.

1. The Asserted Claims.

The asserted claims of the '881 patent are claims 17 and 18. Claim 17 recites:

A plurality of bonded transceivers, each bonded transceiver utilizing at least one transmission parameter value to reduce a difference in latency between the bonded transceivers, wherein a data rate for the first of the bonded transceivers is different than a data rate for a second of the bonded transceivers.

Claim 18 depends from claim 17, and recites:

The transceivers of claim 17, wherein the at least one transmission parameter value is a Reed Solomon Coding parameter value, an interleaving parameter value, a coding parameter value, a codeword size value or a framing parameter value.

2. Claim Construction.

The Court has provided constructions for three of the terms in the '881 patent, which are set out below:

Term or Phrase	Court's Construction
“transceiver”	“communications device capable of transmitting and receiving data wherein the transmitter portion and receiver portion share at least some common circuitry”
“plurality of bonded transceivers”	“two or more transceivers located on the same side of two or more physical links where each transceiver is configurable to transmit or receive a different portion of the same bit stream via a different one of the physical links, wherein ‘configurable to’ precludes rebuilding, recoding, or redesigning any of the components in a ‘plurality of bonded transceivers’”

Term or Phrase	Court's Construction
“utilizing at least one transmission parameter value to reduce a difference in latency between the bonded transceivers”	“utilizing at least one transmission parameter value to reduce a difference in configuration latency between the bonded transceivers”

D.I. 492, at 2.

V. LEGAL STANDARD

Summary judgment is appropriate only where the record, read in the light most favorable to the non-moving party, indicates that “there is no genuine issue as to any material fact and . . . the moving party is entitled to a judgment as a matter of law.” Fed. R. Civ. P. 56(c). To avoid summary judgment, the non-moving party need only present sufficient evidence upon which a jury might reasonably return a verdict in its favor. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248–49 (1986); *C.R. Bard, Inc. v. Advanced Cardiovascular Sys., Inc.*, 911 F.2d 670, 672–73 (Fed. Cir. 1990). In determining whether a genuine issue of material fact exists, the district court views the evidence in the light most favorable to the nonmoving party and resolves all doubts in its favor. *Id.* “Credibility determinations, the weighing of evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge, whether he is ruling on a motion for summary judgment or for a directed verdict.” *Anderson*, 477 U.S. at 255.

VI. ARGUMENT

A. Claim 17 and 18 of the '881 Patent Are Unpatentable Under 35 U.S.C. § 101.

TQ Delta’s motion should be denied, and 2Wire’s cross-motion should be granted, because claims 17 and 18 of the '881 patent are drawn to ineligible subject matter: a math

equation for eliminating a difference in configuration latency between two conventionally bonded transceivers using known transmission parameter settings.³

1. Claims 17 and 18 Recite Only an Abstract Idea.

Under the analysis set forth by the U.S. Supreme Court in *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014), the claims of the '881 patent fail to comply with the requirements of 35 U.S.C. § 101 because they are directed to an abstract idea without any inventive concept sufficient to “‘transform’ the claimed abstract idea into a patent-eligible application.” *See Alice*, 134 S. Ct. at 2357 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72 (2012)). In particular, applying the first step of the *Alice* process to “determine whether the claims at issue are directed to one of those patent-ineligible concepts” (*id.* at 2355), it is clear that at its core, the basic concept or “heart” of the '881 patent is the abstract idea of selecting transmission parameter settings for transmitters so that those transmitters impose similar delays on the data they transmit. *See Alice*, 134 S. Ct. at 2355-56; *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714-15 (Fed. Cir. 2014) (determining the “heart” of the patent-in-suit was an abstract idea); *see also* Declaration of Krista S. Jacobsen in Support of Defendant 2Wire, Inc.’s Opposition To TQ Delta’s Family 2 Motions (“Jacobsen Decl.”) ¶¶ 20-22, 141-142.

³ Section 101 patent eligibility is a question of law, *In re Roslin Inst. (Edinburgh)*, 750 F.3d 1333, 1335 (Fed. Cir. 2014), and as such a court even may invalidate patent claims directed to non-eligible subject matter on the pleadings. *buySAFE, Inc. v. Google Inc.*, 964 F. Supp. 2d 331, 337 (D. Del. 2013), *aff’d*, 765 F.3d 1350 (Fed. Cir. 2014). It follows that this Court can grant 2Wire summary judgment of invalidity of claims 17 and 18 on Section 101 grounds either pursuant to Fed.R.Civ.P. 56(f), or *sua sponte*, and 2Wire through this Opposition Brief moves for such relief. *See Talecris Biotherapeutics, Inc. v. Baxter Int'l, Inc.*, 510 F.Supp.2d 356, 362 (D.Del.2007) (“Where one party has invoked the power of the court to render a summary judgment against an adversary, Fed. R. Civ. P. 54(c) and 56, when read together, give the court the power to render a summary judgment for the adversary if it is clear that the case warrants that result, even though the adversary has not filed a cross-motion for summary judgment”); *see also Anderson v. Wachovia Mortg. Corp.*, 621 F.3d 261, 280 (3d Cir. 2010).

Claims 17 and 18 embrace a math equation: the calculation of settings for bonded transceivers connected to transmission lines operating at different data rates so the data traveling across the transmission lines arrives at a destination at approximately the same time. Jacobsen Decl. ¶ 141. The claims use “transmission parameter values” to reduce latency between the bonded transceivers, where the two bonded transceivers use different data rates:

17. A plurality of bonded transceivers, each bonded transceiver utilizing at least one transmission parameter value to reduce a difference in latency between the bonded transceivers, wherein a data rate for the first of the bonded transceivers is different than a data rate for a second of the bonded transceivers.

18. The transceivers of claim 17, wherein the at least one transmission parameter value is a Reed Solomon Coding parameter value, an interleaving parameter value, a coding parameter value, a codeword size value or a framing parameter value.

D.I. 727, Ex. A, at claims 17-18 (emphasis added). The elements in claims 17-18 of “transmission parameter values, “latency,” and “data rates” are purely mathematical, as the ’881 patent itself acknowledges. *Id.* at 6:66-7:34. Indeed, the ’881 patent expresses configuration latency as a mathematical function derived from parameters “defined as: $\text{Latency} = N * D / R$,” where “where N is the number of bits in a codeword, D is the interleaver depth in codewords and R is the data in bits per second.” *Id.* at 6:66-7:6. The Federal Circuit has held that claims “analyzing information ... by mathematical algorithms, without more” are drawn to a quintessential abstract concept, as are claims directed to “presenting the results of abstract processes of collecting and analyzing information, without more.” *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016); *see also SAP Am, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018) (claims met the first prong of *Alice* where “[t]he focus of the claims ... is on selecting certain information, analyzing it using mathematical techniques, and reporting or displaying the results of the analysis”).

In the portion of its motion addressing Section 112 invalidity, TQ Delta makes an argument that only further demonstrates how the claims of the '881 patent are drawn to patent ineligible subject matter. There, TQ Delta affirmatively argues that the “specification discloses equations for determining transmission parameter that reduce the potential difference in configuration latency between the bonded transceivers to zero,” and TQ Delta quotes those equations in its brief. *See* D.I. 740, at 14-15.⁴

These equations do not actually improve the transceivers and amount to nothing more than effectively speeding up the transmission of data on one line, or slowing it down on the other, so that the data across the multiple lines arrives at a destination at approximately the same time. D.I. 727, Ex. A, at 6:56-59 (“Another effective method of reducing the difference in latency between DSL PHYs is mandate that all DSL PHYs are configured with transmission parameters in order to provide the same configuration latency”); *see also id.* at 6:66-7:34. For example, if one line has a faster data rate than the other, the data traveling on the line with the slower data rate can be effectively speeded up by adjusting transmission parameters, such as interleaver depth or codeword size, associated with the transmission of the data. *See* Jacobsen Decl. ¶ 142. As 2Wire has explained, this is similar to how air traffic control meters the arrival of planes to an airport. *See id.*

TQ Delta relies principally on *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016) and *Genetic Techs., Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1375-76 (Fed. Cir. 2016), to

⁴ TQ Delta in its indefiniteness argument even introduces new “values” and mathematical concepts that do not appear either in the patent, or in any of its expert reports, to try and overcome the invalidity of its claims, as exemplified by its statement that “non-identical configuration latencies can be realized by adding an offset value to one side of the equation.” *See* D.I. 740, at 14 (emphasis added); *see also id.* at 14-15 (“rewriting” the equations set forth in the specification as “ $N1 * D1 / R1 = N2 * D2 / R2 + -$ (plus minus) 2 milliseconds” to try and illustrate “that the difference in latency could be reduced to no more than 2 milliseconds”).

suggest that 2Wire and its expert Dr. Jacobsen are describing claims 17 and 18 at too high a level of abstraction and untethered from the language of the claims. *See* D.I. 740, at 7-9. TQ Delta suggests that “2Wire would have this Court disregard the claimed improvement to bonded transceivers, including bonded transceivers that are capable of utilizing transmission parameter values to reduce differential latency.” *Id.* at 8 (emphasis added). Yet, as noted, it is precisely the use of math equations for adjusting transmission parameter values that renders claims 17 and 18 abstract and invalid. Far from demonstrating that claims 17 and 18 are akin to the claims found to be patent eligible in *Enfish*, TQ Delta’s own statements about what the claims actually are drawn to, *i.e.*, an equation, proves that they recite nothing more than the idea of selecting a parameter in order to adjust a relative value, which is a purely abstract concept. Jacobsen Decl. Ex. ¶¶ 141-142, 148.

Accordingly, the asserted claims 17 and 18 of the ’881 patent fail to satisfy the first prong of the *Alice* patent-eligibility inquiry.

2. The Claims Do Not Contain Any Inventive Concept.

Once a claim is found to encompass an abstract idea, the next step of the patent eligibility analysis requires examination of the elements of the claim “to determine whether it contains an ‘inventive concept,’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 134 S. Ct. at 2357. An inventive concept is “an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* at 2355 (quoting *Mayo*, 566 U.S. at 73). An inventive concept requires more than “well-understood, routine, conventional activit[ies].” *Alice*, 134 S. Ct. at 2359 (quotation omitted). Indeed, to supply an inventive concept, the claim must recite a “specific technical solution beyond simply using generic computer concepts in a conventional way.” *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility*

LLC, 827 F.3d 1341, 1352 (Fed. Cir. 2016). As this Court recently acknowledged, this second step of the *Alice* two-stage inquiry is “‘plainly related’” to the first step of identifying whether the claims are drawn to an abstract concept, and involves “‘overlapping scrutiny of the content of the claims....’” *Baggage Airline Guest Serv., Inc. v. Roadie, Inc.*, 351 F. Supp. 3d at 760 (quoting *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d at 1353).

Claims 17 and 18 of the ’881 patent fall far short of containing any inventive concept. It is undisputed that the bonded transceivers themselves are entirely conventional, and can be “any combination of ‘bonded’ and unbonded, i.e. traditional, ADSL, PHY’s.” D.I. 727, Ex. A, at 4:40-45; *see also id* at 10:54-58; 11:4-7; 11:23-16; Jacobsen Decl. ¶¶ 143-147, 155, 160. It also is undisputed that the transmission parameters that are used by the claims to reduce configuration latency are the known and conventional transmission parameters, *i.e.*, interleaving parameters, codeword size parameters, etc., that the patent says are defined in existing ADSL standards such as G.992.1 and G992.3. D.I. 727, Ex. A, at 6:66-7:9. It is undisputed that the claimed reduction in the configuration latency difference is accomplished using conventional schemes, for example, by choosing transmission parameter settings that result in identical configuration latencies as between the two bonded transceivers. D.I. 727, Ex. A, at 6:56-65; Jacobsen Decl. ¶¶ 148-149, 158-159, 161-163, 166, 168-169, 173.

It also is undisputed that the concept of changing transceiver settings in order to change latency was known prior to the ’881 patent. Jacobsen Decl. ¶¶ 148, 150-151, 167-170. The specification for the ’881 patent acknowledges the bonded transceivers will reduce the differential delay between different communication paths by selecting settings for the transceivers on those communication paths. *See* D.I. 727, Ex. A, at 1:42-47; 6:56-65; 7:22-34. The specifications for ADSL, incorporated by reference into the ’881 patent (*see id.* at 6:66-7:9)

reflect that selecting settings for a transceiver is a conventional task. Jacobsen Decl. ¶ 150, 155. Thus, the concept of using “bonded transceivers” does not in any way distinguish claims 17 or 18 from the abstract idea of setting conventional parameters of conventional transceivers to attempt to reduce a differential delay between multiple communication paths. *Id.* ¶¶ 150-152, 155, 161, 166-167.

Nor do claims 17 and 18 of the ’881 patent solve any specific problem with respect to the operation of the bonded transceivers simply because each bonded transceiver employs a different data rate. Using inverse multiplexing, or the process of dividing one high-speed communication link into multiple low-speed communication links supporting different bit rates, was well known as of the ’881 patent’s priority date. *Id.* ¶¶ 151-153, 163, 167; *see also* D.I. 727, Ex. A, at 5:55-67. Consequently, the ’881 patent adds nothing to the conventional, known methods of controlling latency between two or more transceivers, in which the transceivers select values for the well-known concepts of a framing parameter value, a coding value, a Reed Solomon coding value, a codeword size value, an interleaving parameter value, or other parameters that contribute to latency. Jacobsen Decl. ¶¶ 153, 155, 161, 163, 165-168, 170; *see* D.I. 727, Ex. A, at 6:66-7:7. As the ’881 patent acknowledges, Reed Solomon coding and interleaving functions were already established in public and well-known standards documents, so “[o]bviously the same methods can be applied to more than 2 PHYs with different data rates.” *Id.* at 8:35-36. The claims, even as again considered in light of the written description and drawings, recite only an abstract, well-known concept.

While TQ Delta argues that the ’881 patent describes an improvement to the function of bonded transceivers, (D.I. 740, at p. 10), TQ Delta makes no effort to actually identify what improvements it claims the ’881 patent makes to the function of bonded transceivers. Instead, in

unsupported attorney argument,⁵ TQ Delta argues that in part to overcome the size, complexity, and cost disadvantages inherent with a larger buffer, “bonded transceivers that utilize transmission parameter values to reduce the difference in their configuration latencies, reduce the buffering required at the transmitter and/or the receiver to account for otherwise potentially large differences in the latencies of the bonded lines.” *Id.* at 5, 10. According to TQ Delta, “[t]his results in reduced buffering complexity and reduced memory size,” which TQ Delta claims are “improvements to bonded transceivers.” *Id.* at 10. There is no discussion of these alleged “improvements to bonded transceivers” anywhere in the patent.

Contrary to TQ Delta’s argument, claims 17 and 18 do not recite any claimed advance over the prior art. Neither claim 17 nor claim 18 recites or requires reducing the size of a buffer or reducing buffering complexity. Jacobsen Decl. Ex. ¶¶ 156-157. The specification acknowledges the use of buffers (D.I. 727, Ex. A, at 6:40-55), and it was known that for a selected data rate, larger differential delays require more buffer space, and smaller differential delays require less buffer space. Jacobsen Decl. Ex. ¶ 157. Likewise, it was known that for a given differential delay, higher data rates require more buffer space than lower data rates. *Id.* And for a fixed buffer space, lower differential delays allow the support of higher data rates. *Id.* The ’881 patent does not identify any previously-unknown relationship between buffer size, data rate, and differential latency, it does not identify any advantage in reducing buffering required at the transmitter and/or receiver to account for otherwise potentially large differences in the

⁵ TQ Delta previously relied upon a Rebuttal Expert Report of Todor Cooklev in an attempt to rebut the arguments of Dr. Jacobsen why claims 17 and 18 are invalid pursuant to 35 U.S.C. § 101. However, TQ Delta did not introduce this Rebuttal Report into evidence with its motion, and does not rely upon Dr. Cooklev’s conclusions in trying to establish patent eligibility. Dr. Jacobsen nonetheless provides rebuttal positions to the arguments that Dr. Cooklev made with respect to Section 101 and patent eligibility. Jacobsen Decl. Ex. ¶¶ 154-174.

latencies of bonded lines, nor does it claim to have discovered the relationship between “transmission parameter values” and differential latency. *Id.* ¶¶ 156-159, 161, 167, 170-171.

Because it is undisputed that claims 17 and 18 claim patent ineligible subject matter, the Court should not only deny TQ Delta summary judgment of no invalidity with respect to 2Wire’s Section 101 defense, but it should also grant summary judgment for 2Wire that claims 17 and 18 are invalid.

B. There Are Genuine Disputes Of Material Fact Regarding 2Wire’s Defenses Under 35 U.S.C. § 112.

2Wire has produced evidence that a POSITA would not understand from reading the ’881 patent any way of utilizing transmission parameters to reduce a difference in configuration latency, aside from setting the difference in configuration latencies to zero. The ’881 patent does not describe any way of changing the difference in configuration latency to any value except zero, nor does it explain how a difference in configuration latency would actually be reduced, aside from setting the differential latency to zero. Accordingly, summary judgment of validity for indefiniteness, enablement, and written description are not appropriate.

1. Claims 17 and 18 are Indefinite Under 35 U.S.C. § 112, ¶ 2.

First, 2Wire did not waive this argument by not arguing indefiniteness at the *Markman* stage. *See* D.I. 740, at 11. Tellingly, TQ Delta cites no case supporting its waiver argument. 2Wire was not required, under penalty of waiver, to argue indefiniteness during the Family 2 *Markman* proceedings. Courts in this District routinely reject attempts to raise indefiniteness arguments during claim construction. *See, e.g., Cadence Pharm., Inc. v. Paddock Labs. Inc.*, 886 F. Supp. 2d 445, 452 (D. Del. 2012) (“[T]he Court does not permit summary judgment arguments, including indefiniteness arguments, during the claim construction phase of the litigation.”) (internal quotations and citation omitted), *aff’d sub nom. Cadence Pharm. Inc. v.*

Exela PharmSci Inc., 780 F.3d 1364 (Fed. Cir. 2015); *Pharmastem Therapeutics, Inc. v. Viacell, Inc.*, No. 02-148 GMS, 2003 WL 124149, at *1 (D. Del. Jan. 13, 2003) (“The defendants have not, however, filed a motion seeking to invalidate the patents on indefiniteness grounds. Rather, they simply assert their arguments in their opposition claim construction brief. Such an approach is clearly an attempt at an end-run around the court’s scheduling order regarding the filing of dispositive motions, and will not be sanctioned.”). Consistent with this precedent, 2Wire did not raise indefiniteness at the Markman stage. There is no waiver.

Second, 2Wire has presented competent evidence that claims 17 and 18 of the ’881 patent are indefinite because a POSITA would not know, with reasonable certainty, when “each bonded transceiver [of a plurality of bonded transceivers is] utilizing at least one transmission parameter value to reduce a difference in latency between the bonded transceivers.” *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910 (2014); *Dow Chem. Co. v. Nova Chems. Corp (Canada)*, 803 F.3d 620, 630-31 (Fed. Cir. 2015) (noting that the intrinsic record “must provide objective boundaries for those of skill in the art.” (quoting *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014))).

2Wire’s expert, Dr. Krista Jacobsen, has presented evidence that a POSITA would not know, with reasonable certainty, whether a difference in configuration latency has been reduced based on the intrinsic record of the ’881 patent. Jacobsen Decl., ¶¶ 175-194. The ’881 patent’s specification describes equations for calculating a configuration latency for a transceiver, where the configuration latency depends on transmission parameters used by the transceiver, including R, the data rate. Jacobsen Decl., ¶ 179; D.I. 727, Ex. A, at 6:66-7-6. As a POSITA would understand, the transmission parameters for a transceiver, the data rate in particular, are not known until a transceiver is initialized. Jacobsen Decl., ¶ 179. Thus the difference in

configuration latency between two transceivers cannot be known until initialization is substantially completed. *Id.* This means that there is no way to establish a reference point to determine that a difference in latency has been reduced – at no point does the patent describe, for example, ongoing operation of bonded transceivers wherein the claimed invention of the ’881 patent somehow kicks in mid-operation and measurably reduces latency. *Id.* ¶¶ 180, 184. Nor does the specification describe to a POSITA measuring some initial differential latency that does not use the ’881 patent, so that it can be compared to a differential latency that results from using the patent. In fact, if one bonded transceiver has a configuration of 10 milliseconds, and another has a configuration latency of 12 milliseconds, the ’881 patent fails to inform a POSITA if that difference represents *any* change in the difference in latency *Id.* ¶ 182. Dr. Jacobsen further explains that to a POSITA “the patent does not disclose how to configure the transmission parameters to provide configuration latencies that are not identical, but nevertheless still ‘reduce a difference in configuration latency.’” *Id.* ¶ 180. Nor does the prosecution history provide any guidance on this issue. *Id.* ¶ 181.

TQ Delta’s argument that “the claim limitation is infringed if a product is configurable to bond transceivers where each transceiver uses at least one transmission parameter value that reduces a difference in configuration latency between the bonded transceivers” does not help its cause. *See* D.I. 740, at 12. TQ Delta’s argument is not responsive to the issue identified by Dr. Jacobsen, *i.e.*, the lack of a reference point for determining when a difference in configuration latency is reduced, if it is not eliminated. The Court construed the term “utilizing at least one transmission parameter value to reduce a difference in latency between the bonded transceivers” to mean “utilizing at least one transmission parameter value to reduce a difference in configuration latency between the bonded transceivers.” D.I. 482, at 2. The Court’s

construction includes reductions in the difference in configuration latency that are less than eliminating the difference entirely (*see* D.I. 486, at 17 (refusing to adopt “to reduce the difference” to mean “to minimize the difference,” because “reduce” and “minimize” are not synonymous)), but the intrinsic record says nothing about how to determine when such reductions have been achieved. Nor does simply saying, without more, that the parameters are selected to reduce a difference in latency, D.I. 740, at 13, because this again does not explain how to tell whether a difference in latency is reduced, increased or stays the same. Nor does saying that “the claim only requires that a difference in the latency is reduced with respect to what it could have been.” *Id.* at 14. That is precisely the problem identified by Dr. Jacobsen, *i.e.*, the ’881 patent describes no way of knowing what the difference in latency “could have been” absent the invention, so there is no way of knowing how a difference in latency was reduced. Jacobsen Decl. ¶ 193.

In its motion, TQ Delta introduces a new argument that only proves 2Wire’s point regarding indefiniteness. TQ Delta argues that a POSITA could merely introduce an “offset value” to one side of the equation disclosed in the ’881 patent to reduce a difference in latency without reducing it to zero. D.I. 740, at 14-15. It is undisputed that the new equation offered by TQ Delta does not appear anywhere in the patent. Further, TQ Delta’s new equation suffers from the same problem identified by Dr. Jacobsen with respect to the equations actually disclosed in the ’881 patent – the added “offset value” would make it nearly impossible to determine whether the differential latency was reduced, increased, or stayed the same. Jacobsen Decl. ¶ 184. The latency differential “could have been” one millisecond, or less, or more, without using the methods described in the ’881 patent, so there is no way of knowing whether the 2 millisecond latency differential proposed by TQ Delta caused the differential latency to

increase, decrease, or stay the same over what it “could have been.” *Id.* This is exactly the kind of “zone of uncertainty” that makes it impossible to know when a claim is infringed, and renders claim language at issue here indefinite. *See Nautilus*, 572 U.S. at 909-910.

2. The Full Scope of Claims 17 and 18 Is Not Enabled Under 35 U.S.C. § 112, ¶1.

2Wire has presented evidence that the full scope of claims 17 and 18 are not enabled, because the specification, claims, and drawings of the ’881 patent do not describe to a POSITA how to reduce a difference in latency without eliminating it entirely. Jacobsen Decl., ¶¶ 205-210. 2Wire has provided evidence that a POSITA would be unable to practice the claimed invention without “undue experimentation.” *See Trustees of Boston Univ. v. Everlight Elecs. Co., Ltd.*, 896 F.3d 1357, 1362 (Fed. Cir. 2018). Merely enabling a single embodiment does not suffice for enabling the entire scope of the claims. *See Automotive Techs., Int’l, Inc. v. BMW of N. Amer.*, 501 F.3d 1274, 1285 (Fed. Cir. 2007) (“Thus, in order to fulfill the enablement requirement, the specification must enable the full scope of the claims that includes both electronic and mechanical side impact sensors, which the specification fails to do.”).

2Wire’s expert, Dr. Jacobsen, opines that “the ’881 patent does not disclose any way to reduce a difference in configuration latency other than by configuring all transceivers’ transmission parameters so that all transceivers will have the same configuration latency.” Jacobsen Decl. ¶ 206. The specification does not explain how to reduce a difference in configuration latency without eliminating it completely, so the entire scope of the claim is not enabled, and TQ Delta does not identify any way that it does.

Nor does the specification explain to one of ordinary skill in the art how he or she would be able to determine that a difference in configuration latency had been reduced, if it were not eliminated. 2Wire, through Dr. Jacobsen, has produced evidence that “a conventional

transceiver as of the '881 patent's priority date would not have been able to 'reduce a difference in latency' on its own." *Id.* at ¶ 207. And "[i]f the configuration latencies are merely to be 'reduced' by some amount, but not made equal, the '881 patent does not enable one of ordinary skill in the art to know whether the difference in configuration latency has been reduced, because it provides no reference point from which to make that determination." *Id.* at ¶ 208.

TQ Delta argues that Dr. Jacobsen has not explained why a POSITA would not be able to "realize non-identical configuration latencies" by adding TQ Delta's proposed "offset value." D.I. 740, at 16. *First*, this argument misses the point, explained above, that TQ Delta's "offset value" scenario still does not allow a POSITA to determine whether or not a difference in latency between two connections has been reduced. *Second*, TQ Delta misstates the standard. As the Federal Circuit has noted, "[i]t is the specification, not the knowledge of one skilled in the art, that must supply the novel aspects of an invention in order to constitute adequate enablement." *Pi-Net, Int'l v. JP Morgan Chase & Co.*, 42 F. Supp. 3d 579, 593 (D. Del. 2014) (quoting *Genentech, Inc. v. Novo Nordisk A/S*, 108 F.3d 1361, 1366 (Fed. Cir. 1997)).

In short, 2Wire has adduced sufficient evidence, in the form of Dr. Jacobsen's expert opinion testimony, to defeat TQ Delta's summary judgment motion on 2Wire's enablement defense.

3. Claims 17 and 18 Lack Written Description in the Specification.

2Wire has presented evidence that claims 17 and 18 lack written description under 35 U.S.C. 112, ¶ 1. 2Wire's expert, Dr. Jacobsen, has opined that a POSITA would not have understood the applicants to have been in possession of the full scope of the claims as construed. *See Rivera v. Int'l Trade Comm'n*, 857 F.3d 1315, 1319 (Fed. Cir. 2017). Specifically, the claims, specification, and intrinsic record does not describe any way of "utilizing a transmission parameter to reduce a difference in latency" other than setting the difference in configuration

latency to zero. Jacobsen Decl., ¶¶ 196-204. This evidence is sufficient to create a genuine dispute of material fact regarding 2Wire's written description defense.

Dr. Jacobsen opines that “the written description and drawings do not disclose and do not provide any guidance regarding how to reduce, without eliminating entirely, a difference in configuration latency between the bonded transceivers.” Jacobsen Decl. ¶ 197. The written description teaches that “[a]n exemplary method of accomplishing the same configuration latency is by configuring the exact same data rate, coding parameters, interleaving parameters, etc. on all DSL PHYs,” or that “[a]lternatively, different PHYs can have, for example, different data rates but use the same appropriate coding or interleaving parameters to have the same latency on all the bonded PHYs.” D.I. 727, Ex. A, at 6:56-65; *see also* Jacobsen Decl. ¶ 197. Dr. Jacobsen further opines that “[t]he written description only provides guidance regarding how to eliminate any difference in configuration latency.” Jacobsen Decl. ¶ 197 (citing D.I. 727, Ex. A, at 6:66-7:36 (emphasis in original)). She further opines that “the patent does not disclose how to configure the transmission parameters to provide configuration latencies that are not identical but that would be considered ‘close enough’ to qualify as ‘reduc[ing] a difference in latency.’” *Id.* ¶ 198. She further explains that, because the “bonded transceivers” recited in the claims were conventional, they are ignorant of the configuration settings and latency of another transceiver, and cannot, by themselves, reduce a difference in configuration latency. *Id.* ¶ 199.

TQ Delta's argument that the '881 patent's disclosure of an equation for *eliminating* a difference in latency, and its accompanying embodiment, is sufficient written description (D.I. 740, at 16) misses the point entirely. A math equation for eliminating a difference in configuration latency between bonded transceivers would be sufficient written description support for claims covering eliminating configuration latency between those transceivers. But

here claims 17 and 18 of the '881 patent require *reducing* configuration latency, so the equations cited by TQ Delta cannot provide written description support for the full scope of the claims. There are important differences between eliminating entirely and merely reducing differential latency. By analogy, there are important differences between eliminating carbon emissions entirely and merely reducing them from some known baseline (*i.e.*, a reference point), to some lesser amount. TQ Delta's new idea, *i.e.*, introducing an "offset value" into the math equation for one of the bonded transceivers, is expressly not disclosed in the intrinsic record, and therefore cannot save the patent from 2Wire's written description defense. *See Reiffin v. Microsoft Corp.*, 214 F.3d 1342, 1345-46 (Fed. Cir. 2000) ("Compliance . . . with the written description requirement requires that the specifications of these patents describe the inventions claimed in these patents.").

VII. CONCLUSION

For the reasons stated above, TQ Delta has not shown as a matter of law that claims 17 and 18 of the '881 patent are not invalid under 35 U.S.C. §§ 101 and 112, thus its motion for summary judgment should be denied. 2Wire has shown that claims 17 and 18 of the '881 patent are invalid under 35 U.S.C. § 101, and 2Wire's cross-motion for summary judgment should be granted.

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Respectfully submitted,

Defendant 2Wire, Inc.

By their attorneys,

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